## APPENDIX A

## PENDING CLAIMS AFTER ENTRY OF THE AMENDMENT

- 1. (Thrice Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:
  - (a) the nucleotide sequence as set forth in SEQ ID NO: 1;
- (b) a nucleotide sequence encoding the polypeptide set forth in SEQ ID NO: 2; and
  - (c) a nucleotide sequence complementary to either of (a) or (b).
- 2. (Thrice Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:
- (a) a nucleotide sequence encoding a polypeptide that is at least 90 percent identical to the polypeptide set forth in SEQ ID NO: 2, wherein the encoded polypeptide has at least 1,649 amino acids and has human E3α ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2; and
  - (b) a nucleotide sequence complementary to (a).
- 3. (Thrice Amended) An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:
- (a) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with a substitution of one to 100 conservative amino acids, wherein the polypeptide has human E3α ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2;
- (b) a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: 2 with an insertion of one to 100 amino acids, wherein the polypeptide has human E3\alpha ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2, and optionally comprises a truncation and/or deletion up to about 100 amino acids;





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- a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: (c) 2 with an internal deletion of one to 100 amino acids, wherein the polypeptide has human E3\alpha ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2;
- a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: (d) 2 which has a C- and/or N-terminal truncation up to about 100 amino acids, wherein the polypeptide has human E3\alpha ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2;
- a nucleotide sequence encoding a polypeptide set forth in SEQ ID NO: (e) 2 with a modification of one to 100 amino acids selected from the group consisting of amino acid substitutions, amino acid insertions, amino acid deletions, C-terminal truncation, and N-terminal truncation, wherein the polypeptide has human E3a ubiquitin ligase activity of the polypeptide set forth in SEQ ID NO: 2; and
  - a nucleotide sequence complementary to any one of (a)-(e). **(f)**

- 4. (Amended) A vector comprising the nucleic acid molecule of any one of claims 1, 2, or 3.
  - 5. (Original) A host cell comprising the vector of claim 4.
  - (Original) The host cell of claim 5 that is a eukaryotic cell. 6.
  - 7. (Original) The host cell of claim 5 that is a prokaryotic cell.

- 8. (Amended) A process of producing a human E3α ubiquitin ligase polypeptide comprising culturing the host cell of claim 5 under suitable conditions to express the polypeptide.



D4

- (Amended) The process of claim 8, wherein the nucleic acid molecule comprises promoter DNA other than the promoter DNA for the native human  $E3\alpha$  ubiquitin ligase polypeptide operatively linked to the DNA encoding the human  $E3\alpha$  ubiquitin ligase polypeptide.
- 11. (Original) The isolated nucleic acid molecule according to claim 2 wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTP, BLASTN, FASTA, BLASTA, BLASTX, BestFit, and the Smith-Waterman algorithm.

D5

- 46. (Amended) A composition comprising a nucleic acid molecule of any one of claims 1, 2, or 3.
- 47. (Original) A composition of claim 46 wherein said nucleic acid molecule is contained in a viral vector.

D6

48. (Amended) A viral vector comprising a nucleic acid molecule of any one of claims 1, 2, or 3.

D7

59. (Thrice Amended) A reagent comprising a detectably labeled polynucleotide according to any one of claims 1 to 3.



- 61. (Twice Amended) A method for determining the presence of a human E3α ubiquitin ligase nucleic acid in a biological sample comprising the steps of:
- (a) providing a biological sample suspected of containing a human  $E3\alpha$  ubiquitin ligase nucleic acid;

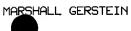


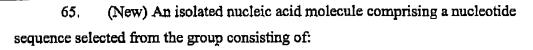
- contacting the biological sample with a the reagent according to claim (b) 59 under conditions wherein the reagent will hybridize with a human E3α ubiquitin ligase nucleic acid contained in said biological sample;
- detecting hybridization between the human E3\alpha ubiquitin ligase (c) nucleic acid in the biological sample and the reagent; and
- (d) comparing the level of hybridization between the nucleic acid in the biological sample and the reagent with the level of hybridization between a known concentration of human E3a ubiquitin ligase nucleic acid and the reagent.
- 62. (Twice Amended) A method for detecting the presence of a human E3α ubiquitin ligase nucleic acid in a tissue or cellular sample comprising the steps of:
- providing a tissue or cellular sample suspected of containing a human (a) E3α ubiquitin ligase nucleic acid;
- contacting the tissue or cellular sample with a the reagent according to (b) claim 59 under conditions wherein the reagent will hybridize with a human E3\alpha ubiquitin ligase nucleic acid;
- detecting hybridization between the human E3 a ubiquitin ligase (c) nucleic acid in the tissue or cellular sample and the reagent; and
- comparing the level of hybridization between the nucleic acid in the (d) tissue or cellular sample and reagent with the level of hybridization between a known concentration of human E3a ubiquitin ligase nucleic acid and the reagent.
- 63. (Original) The method of claim 59 wherein said polynucleotide molecule is DNA.
- (Original) The method of claim 59 wherein said polynucleotide 64. molecule is RNA.











the nucleotide sequence as set forth in SEQ ID NO: 18; (a)

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(b) a nucleotide sequence encoding the polypeptide set forth in SEQ ID NO: 19; and

a nucleotide sequence complementary to either of (a) or (b). (c)

